



Dear Earth Mission Asia Family,

Greetings and Happy Thanksgiving! We trust that you are safe, healthy, and filled with hope. In this update, we will highlight:

- An incredible story by Dr. Mitch about a pregnant Karen woman who required immediate assistance for her and her baby. ***YOUR generous support in action!***
- The graduation of EMA's first-ever Year 5 Physician Assistants (December 2020). ***We applaud these fine young people and thank YOU for supporting them!***
- EMA's financial status as this crazy and unprecedented year comes to end. ***We encourage you to make a year-end contribution.***

First, you've noticed the **2020 Yearbook**. Please check out the people who make up EMA, including the students, teachers, leadership team, support staff, and more. Please consider sharing this resource with a friend, co-worker, colleague, or family member. We appreciate your help in spreading the word about EMA!



“Winter and spring are dry in the western mountains of Burma. From November through March, most days are sunny. Leaves turn brown and the jungle slowly thins. People come and go about their business. Then, sometime in the late spring, the rains begin again. Lasting into October, they come to dominate all activity in the area. A primordial wildness returns to the jungle with a vengeance. Green explodes. Mosquitoes thrive. Vines grow. Trees fall. Roads fill with mud. Bridges are washed away. Travel in or



out of the region becomes increasingly difficult. Young men on motorcycles fight the restrictions for a while. A modern version of the brave, lean pony express riders of old, they cross raging rivers and skid down deeply rutted roads on the muddy slopes to bring in needed supplies ... for as long as they can. Then, they, too, find reasons not to travel. This year, nature's rainy quarantine has, at least so far, kept Covid at bay. Eventually, only the desperate travel far during the rainy season. The sick and pregnant are often desperate.

The village of LayPoeKhawHtee is nestled between mountain and river, along one of the few major roads that dares to traverse the jungle of western Burma. "Major" in this case, means wide enough for two vehicles ... mostly. It is dirt, rarely if ever graded, and far from smooth or gentle. Houses in LayPoeKhawHtee are made of bamboo, sit on stilts and are topped with leaf roofs. Shee Kler Paw, a 20-year-old Karen mother of two, lived in one of these huts. The 15-minute walk from her hut to the main road presented little problem for the healthy, strong young woman, even though she was now 29 weeks pregnant. One night, around 7pm, without warning, she suddenly started bleeding. And bleeding a lot. When her family couldn't wake her up, they called the local village medic who gave 2 liters of IV fluid. A typical remote Karen village, no one in the entire village had a truck, a phone or even a radio that could be used to call for help. Instead, they had to send one of their "pony-express riders" to our Rain Tree Clinic (RTC), a one-hour ride by motorcycle-steed. Just before midnight, the messenger arrived to a sleepy RTC campus. Gay Wah, Aung and Paw, three of our Physician Assistant students, quickly got ready, and within a few minutes were following the messenger back to the village on two of their own motorcycles. They all knew that massive third-trimester bleeding is bad. Usually caused by an abruption of the placenta, a placenta previa or a ruptured uterus. They knew there would be little they could do in the field. A placenta circulates an equivalent of the mother's entire blood volume in about 10 minutes. The patient could go into irreversible shock before she lost even half that much. Peripartum hemorrhage is the leading cause of maternal death in these areas. The only hope the PA students could offer would be to bring the patient back to the clinic and transfuse her with enough blood to get her to a hospital capable of doing a C-Section. Even as they bounced and skidded their motorcycles into the night, they knew the situation was desperate.

They arrived at LayPoeKhawHtee and examined the young woman. As expected, there was little they could do onsite. The patient would need to be transferred to RTC. An unconscious patient can be carried on a motorcycle, if wedged between two determined people. The students knew they could not do a digital vaginal exam on someone with third trimester bleeding because of the risk of causing even more bleeding. Similarly, although probably not specifically stated in protocols, vigorously bouncing the patient up and down for an hour on a motorcycle also just didn't seem wise. Although it would be several long hours slower, they decided to carry the woman to RTC by bambulance.

A bambulance is our English word for the transportation means of choice for non-ambulatory patients in the impassable jungle. A patient is wedged horizontally into a hammock that is tied tightly to a long bamboo pole. Two men grab an end and carry the patient where they need to go. Carriers switch out with other members of the team as they need. Shee Kler Paw's family began waking up a number of strong men



scattered around the village for bambulance duty. The transport team assembled and around

2:30am headed out towards RTC with their precious cargo. About half-way back, Gay Wah sent Aung on head to the clinic "fast" to get them preparing for the emergency transfer. Aung arrived back before dawn and raised the alarm. Meanwhile, GayWah and Paw continued with the patient. About 20 minutes from the clinic, the young mother started bleeding again. The team was going as fast as they could, but they didn't arrive at RTC until 7:30am.

At the clinic, the patient started bleeding heavily again. Someone estimated blood loss this time to be around 2 to 3 liters. Although that was probably an overestimation, without a doubt it meant the young woman was losing a lot of blood! The receiving team started working quickly. The raw emotion of the moment is captured well in the words of one of the PA students present, Paw Tall:

'In a few minutes, the patient get shock and was unconscious. So, everyone is working quickly and right in their own way. Whatever Thera Raykaw (the Medical Director) ask us to do, we do. Draw blood, do a blood match, give O2, check vital signs, insert next IV cannula, give medicine, insert catheter. Outside people are preparing the car and money. So, in forth-five minutes we can prepare the patient very well.'

The patient ended up having AB+ blood. Although this is the rarest blood type, technically AB+ is the universal recipient and should be able to receive any other blood type. Another option in emergencies is to transfuse with O negative blood as it is the universal donor. The RTC team had had a bad reaction once giving unmatched O neg blood and were hesitant about giving anything short of a full typed and cross-matched blood. In remote areas, there are no blood banks. Instead, RTC uses the walking blood bank concept. They check the type of the patient's blood, then look for several donors who happen to be walking around with the same blood type. As many local people are afraid of the concept of giving blood, PA students end up taking turns donating. A crossmatch is then performed and the donor is checked for several communicable diseases such as HepB, HepC, HIV, malaria and syphilis. If all checks out, the PA student will drain 400 to 500cc's of fresh whole blood from the donor into an anticoagulant containing blood bag. This is then filtered and transfused into the patient.

While the life-sustaining blood dripped into this patient, others prepared the truck for the transfer to the Papun hospital, 5 hours away. 5 hours if the road was open. 5 hours if there was no more rain. In addition to the uncertainty about the road, the truck was also less than healthy. Earlier in the year, before the start of the rainy season, the truck had been in a minor accident that bent the front left wheel. That bend in turn, had damaged the brakes. Although the engineers at RTC had temporarily fixed the brakes, the rains prevented them taking the truck to get the wheel straightened. Bad roads, a patient in hemorrhagic shock, questionable brakes, a bent wheel ... This wasn't going to be a trip for the faint of heart. In fact, Raykaw planned to stop the first vehicle he saw on the road and ask them to take the patient the rest of the way to Papun. If they didn't meet anyone along the way, Raykaw said, 'I will just drive until it stops.' A fellowship of nine piled into the pickup truck with the patient: Raykaw (Medical Director), Gay Wah, Thit Paw, DahMoo (4thyr PA students),



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KawThaBlay (3rd year PA student), MooNay (RTC staff), the patient, her husband, father and uncle. It was 8:45am.

Again, one of our students in the truck bed with the patient captured the tension of the trip:

'We have two cannulas on patient hand, one is for blood transfusion and one is for bolus of NSS. (Normal Saline Solution). During the trip, the patient loses consciousness four times, even if we give her pain. Blood pressure is always under 80/60; sometimes it goes down to 60/40. Oxygen 97% with 3 liter of oxygen. I didn't check temperature and respiration rate because we were in the back of the truck, but I check the pulse rate frequently with hand pulse ox. I worry she will pass away. Thara Moo Nay and Kaw Tha Blay behind me, and they help control the oxygen tank but the road is really bad. The oxygen tank regulator part got hit with bamboo and oxygen leak out. I ask TharaRay Kaw to stop the car and we fixed it with tape. The patient look swelling, and she start getting rales in lungs. I talk to Thara RK to slow down the IV at that time. BP is 60/40 but we can't stop. If we stop, she is going to die. If we give more IV, she will hurt but we decided to give.'

Although they were worried about rain at first, the weather turned out to be beautiful for travel ... sun and clouds the whole way. They didn't see a single other vehicle on the road, but the bent wheel and the brakes held. They arrived at the hospital in Papun around 1:30pm. The patient was still alive. The doctor, however, took one look at the patient's swollen face and said, 'Oh you gave too much fluid.' Raykaw quietly noted he had not listened to the lungs before he said it. The doctor had no idea what this intrepid team had done to keep this young woman alive this far. The team also noted that the doctor also hurried up to refer to Hpaan, the city with the next higher level of care. Unfortunately, for the patient, this meant another 3 to 4-hour drive with another crew before she could receive definitive care. The doctor at the Papun hospital took care of that transfer and our team could begin the return trip home. The young mother would end up surviving the ordeal but tragically her baby did not.

Before they headed home, Raykaw bought 10 tetanus toxoid injections from the hospital pharmacy. The night before, another case had been carried in to RTC by bambulance. A 13-year-old boy had been feeding the family's pig, when the pig turned and bit him in the groin. His right testicle had been completely ripped off. Raykaw didn't get him fixed up until after midnight, a few short hours before Shee Kler Paw arrived. After packing the anti-tetanus vaccines away in a cool box, the weary team headed back home in their truck with the bent tire. Several hours later, they, too, somewhat miraculously and all very thankfully alive, arrived back to RTC.

They arrived back to eleven patients in their newly expanded RTC hospital ward. Three kids with pneumonia were on oxygen. They only have two oxygen concentrating machines. So, they took a stethoscope apart to use the Y adapter to split the oxygen line. One machine now kept two kids alive until their antibiotics kicked it. The kid with the groin injury, got his tetanus shot and is healing up fine. The following day, another young lady would come in bleeding with a miscarriage. But for the rest of this day, they could rest.



Paw Tall finished her write up of the story with this:

'In my feeling ... working in a team is very different from working in one person. Teamwork is very important and lead us well. The patient family is very important, too, to work with us. I am really happy because I can help something in the serious patient. I am thankful to the EMA program for teach us to help our people and everyone who support us.'

*As Paw Tall says, this is not just her story. This is the story of a team. It includes many of the RTC staff and students. It includes the patient's family. It includes everyone who supports this project. The admin teams who keep everyone organized and supplied. Writers, editors and artists who help tell the stories. Board members. Fundraisers and those who give money. Those who pray. As an old ER doc myself, I identify with the rewards of working on a team. For me ... being part of a competent team in a hard, desperate place is probably one of the most fulfilling experiences I've ever had in my life. It touches something deep inside our souls. The facades are stripped away. The noise of our day to day lives for a moment fade. The things that matter most deeply to our own lives are revealed and shared with others. You don't have to try to remember these things like a step in a self-improvement scheme ... that moment becomes a permanent part of who you are. **We are sending this to a few of you who have played a part in this story. You don't need my thanks ... You are part of the team that helped to make this story happen. Knowing that is far more powerful than any words of thanks I could offer.***

'None of us, including me, ever do great things. But we can all do small things, with great love, and together we can do something wonderful.' Mother Teresa"

Congratulations to EMA's First-Ever Physician Assistant Graduates!

Here's Naw Lay Lay Poe's story:

"I am a Physician Assistant Year 5 student at Earth Mission Asia. Before I came to EMA, I heard that EMA was doing physician assistant training by Thara Ray Kaw and Dr. Mitch. Then, I asked them how many years this training would be, and they said the training program would be for five years. They also said after finishing the training we would have to work in rural areas.



Naw Lay Lay Poe (center, front row)



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When I heard about this program, I was interested in it, so I decided to join PA training. By the grace of God, I was accepted in this training program. First year I studied in Chiang Mai, Thailand. I learnt English, Math, Basic science (Chemistry), critical thinking skills, and basic computer skills.”

To read the rest of Naw Lay Lay Poe’s EMA journey, please go to:
<https://www.earth-mission.org/2020/11/naw-lay-lay-poes-journey/>

EMA’s Finances

The Good News

Maybe you viewed EMA’s first-ever Virtual Fundraiser which debuted on October 18, 2020? If not, then please check it out by going to www.earth-mission.org. To date, \$13,886 was raised. **We are grateful for all who gave. Thank YOU!**

The Not-So-Good News

During this global pandemic, like many non-profit organizations around the world, EMA is experiencing a decline in donations. Specifically, we are \$138,140 less in total receipts compared to last year at this time. With that said, we are grateful that 8,588 patients have been served through October in EMA’s two clinics in Myanmar (Burma).

YOUR contributions are changing lives. YOU are providing health for the hidden.

To the point, if this is an appropriate time to help financially, then super. Again, thank YOU. If times are tough and this is not a good time to donate, then that is understandable. We trust our intentions are clear-- to make you aware of the current financial challenge.

There you have it, friends. Please receive **a sincere thanks for YOUR part in changing the course of history for the Karen.**

Blessings,

Dr. Rob Campbell

Director of Development